

Work Order ID 156787***156787***

Page 1

Wednesday, February 08, 2017 9:09:49 AM

Item ID: 646.3311 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: RH Half - Upper Cutter Assembly
Start Date: 1/18/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 2/8/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference: **DAS 21 9-89**

Approvals: Process Plan: **DAS 21 9-89** Date: **FEB 08 2017** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.3300	N/C3								

110

110

HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

1-Machine per folio FB154
DWG REV: N/C
FOLIO REV: AA
Blank 13.375

2- deburr and break all sharp edges

0.89

2.47

D.A. 17-02-21**5****φ****DAS 08 9-89**

120

120

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.00

D.A. 17-02-21**5****φ****DAS 08 9-89**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

156787

Wednesday, February 08, 2017 9:09:49 AM

N900040100

Setup Start *NS1*

Stop *NS2*

4

Cust Item ID:

Start Date: 1/18/2017 **Start Qty:** 4.00

Required Date: 2/8/2017 **Req'd Qty:** 4.00

4

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

**Insp.
Stamp**

0.00

130

QC

Memo

0.00

Quality Control

0.00

140

Outsource4

Memo

0,00

Outsource process - Anodize

Issue P/O to ATG : 3552

1- Black Anodize as per Dwg 646.3300

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Comformity is required

0.00

150

Packaging

Memo

0.00

Packaging

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By 		
							Lead hand / Supervisor Approval Verification 		
QC / QA Coordinator Approval 									

Root Cause				FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : _____							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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				Lead hand / Supervisor Approval Verification	
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OTHER : _____					

Picklist Print

Wednesday, February 08, 2017 9:09:48 AM

Page 1

Work Order ID: 156787

156787

Parent Item: 646.3311

646.3311

Parent Item Name: RH Half - Upper Cutter Assembly

Start Date: 1/18/2017

Required Date: 2/8/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A NEW ISSUE 12/11/27 JFS VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B7.000X2.000		Purchased			No		f	6.7020		4.694737			

M7075T6B7 000X2 000

7075-T6 BAR 7.000" X 2.000" (order in billets - 13.375")

D.O. 17-02-21

Location

Loc Qty

Loc Code

MAT001

6.702

→ m136697

6.69

m136715

0.012

6.69 **

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DART AEROSPACE LTD		Work Order:	156787
Description: RH Half		Part Number:	646.3311
Inspection Dwg: 646.3300 Rev: N/C3		Page 1 of 1	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
7.296	+/-0.005	7.297	✓		H-6	31006
3.767	+/-0.005	3.768	✓		"	"
0.457	+/-0.005	0.458	✓		"	"
0.313	+/-0.005	0.314	✓		"	"
0.710	+/-0.005	0.711	✓		"	"
6.469	+/-0.005	6.470	✓		"	"
10.116	+/-0.005	10.117	✓		"	"
10.309	+/-0.005	10.310	✓		"	"
Ø0.177	+0.005/-0.001	Ø0.178	✓		Vern	GA-13
Ø0.209	+0.005/-0.001	Ø0.210	✓		"	"
0.250	+/-0.005	0.251	✓		Mic	GA-03
1.250	+/-0.005	1.252	✓		H-6	31006
R0.125	+/-0.005	R0.125	✓		R-6	ref.
3.513	+/-0.005	3.512	✓		H-6	31006
8.375	+/-0.005	8.374	✓		"	"
0.250	+/-0.005	0.252	✓		Mic	GA-03
8.1°	+/-0.5°	8.1°	✓		Angle M.	CNC-17
11.689	+/-0.005	11.688	✓		H-6	31006
11.250	+/-0.005	11.251	✓		"	"
0.200 x 45°	+/-0.005	0.198 x 45°	✓		Vern	GA-13

Measured by: D. DAS	Checked by: JL	QC Inspector:
Date: 17-02-21	Date: 17-2-22	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	13.09.17	New Issue	KJ	
B	16.03.17	Dwg Rev updated	KJ	

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04765

SHEET 1 OF 1

DWG NO. 646.3300

REV: NC

PREPARED BY J. SOTO

DATE: 12/08/2014

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY:

ENGR

MFG

QC

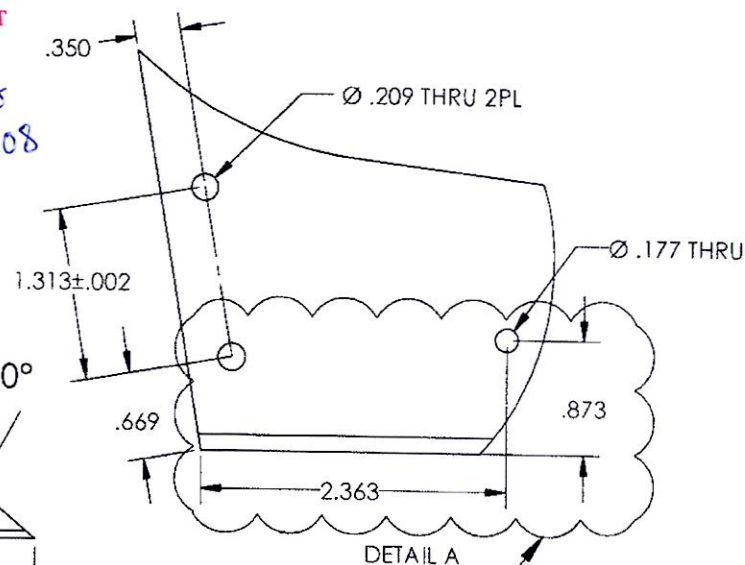
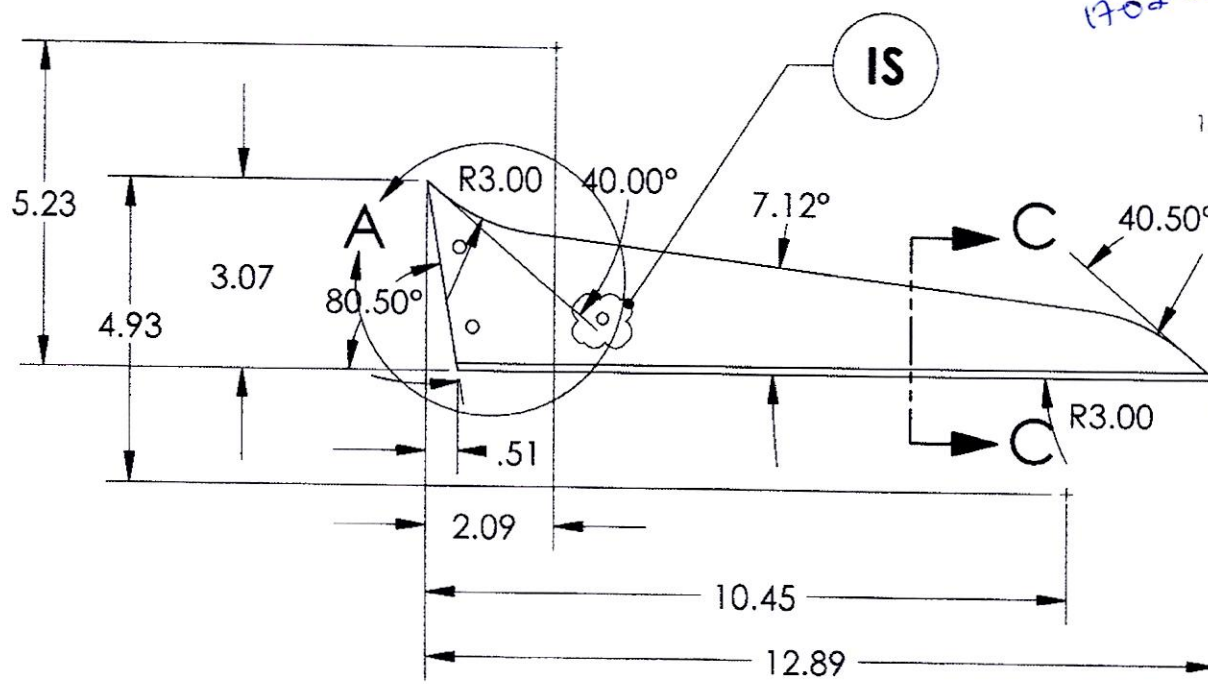
EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: ADDED HOLE DIMENSION TO 646.3313.

SHEET 5 IS:

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 156787 ML5
1702-08



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

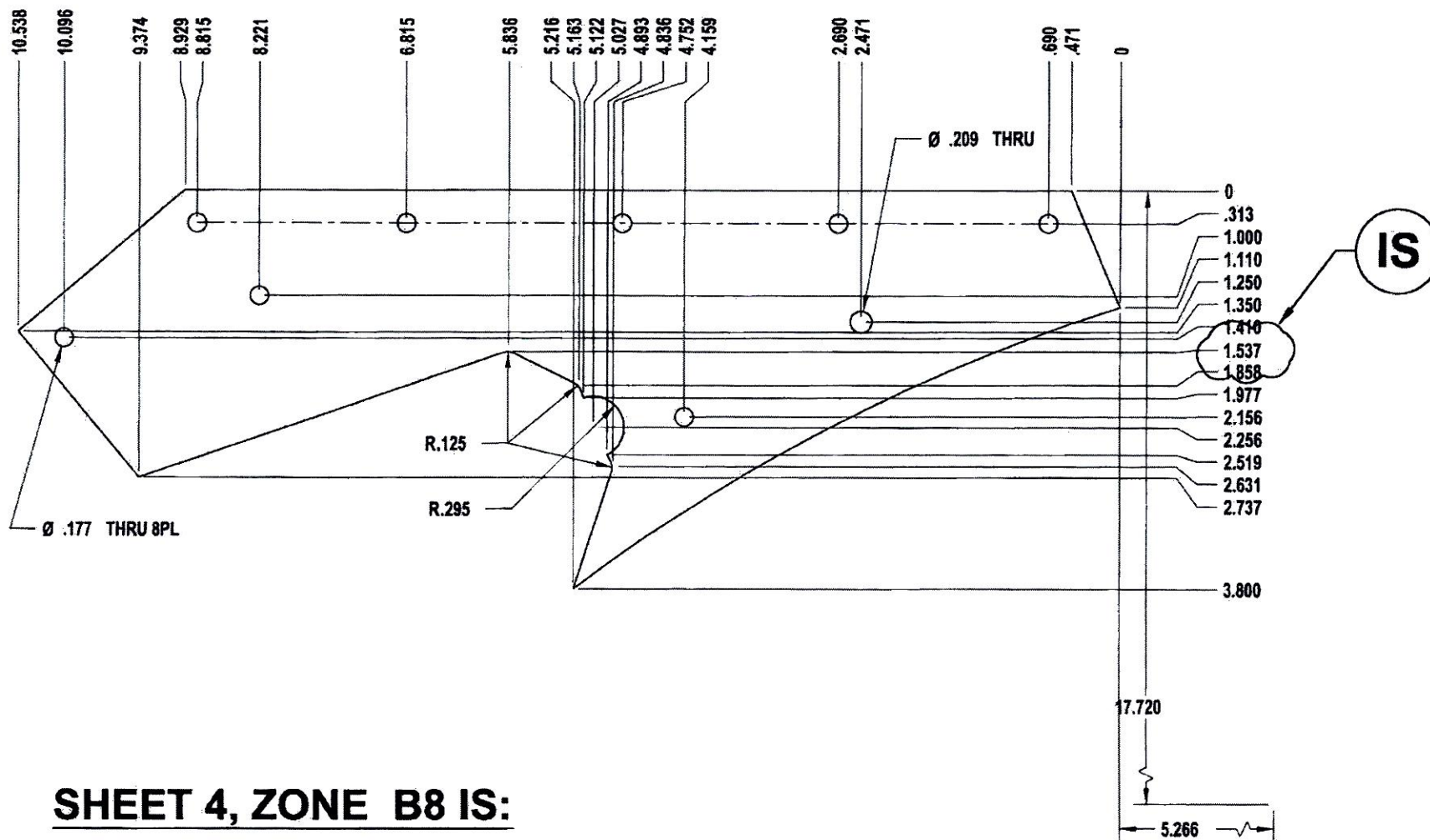
CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03724				SHEET 1 OF 1	
	DWG NO. 646.3300	REV: N/C	PREPARED BY B. PETERS	DATE: 12/05/12	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: UPPER CUTTER ASSY					
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
REASON: REVISED ORDINATE DIMENSION.					ECR: D-12-025	

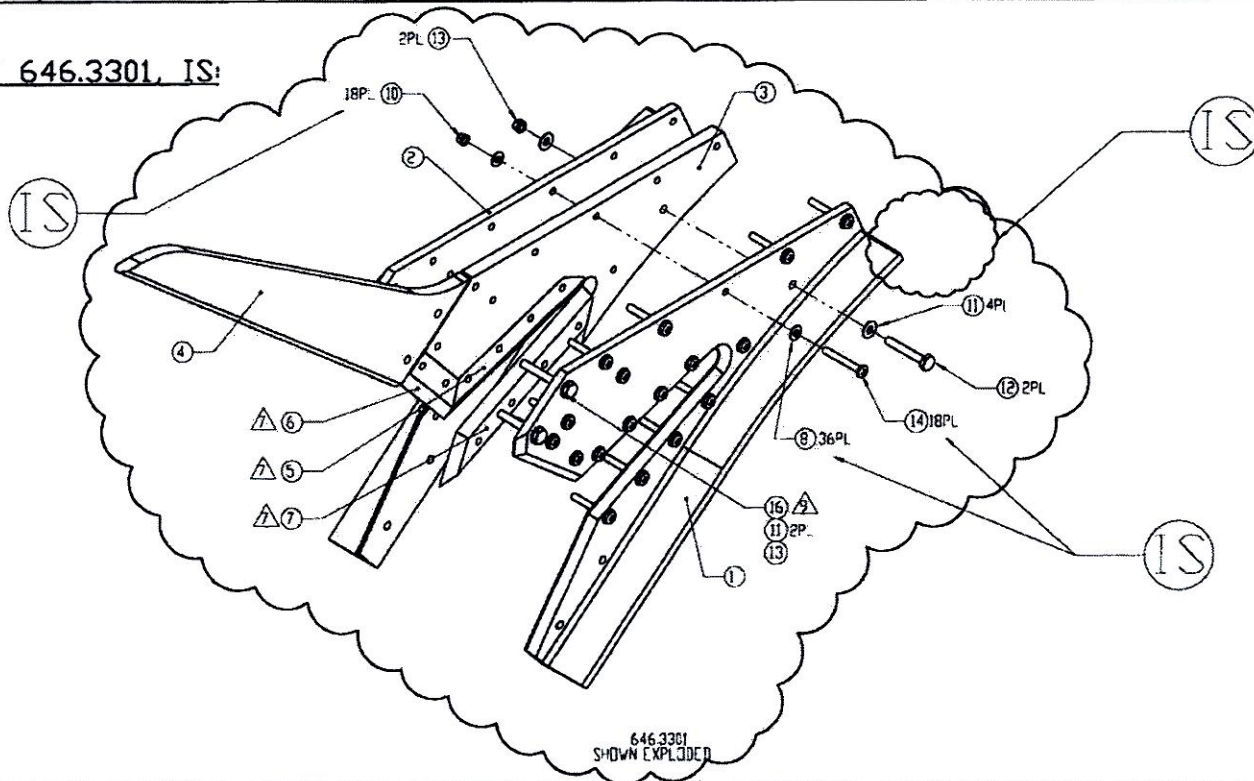


SHEET 4, ZONE B8 IS:

DOCUMENTS EFFECTED:	☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO
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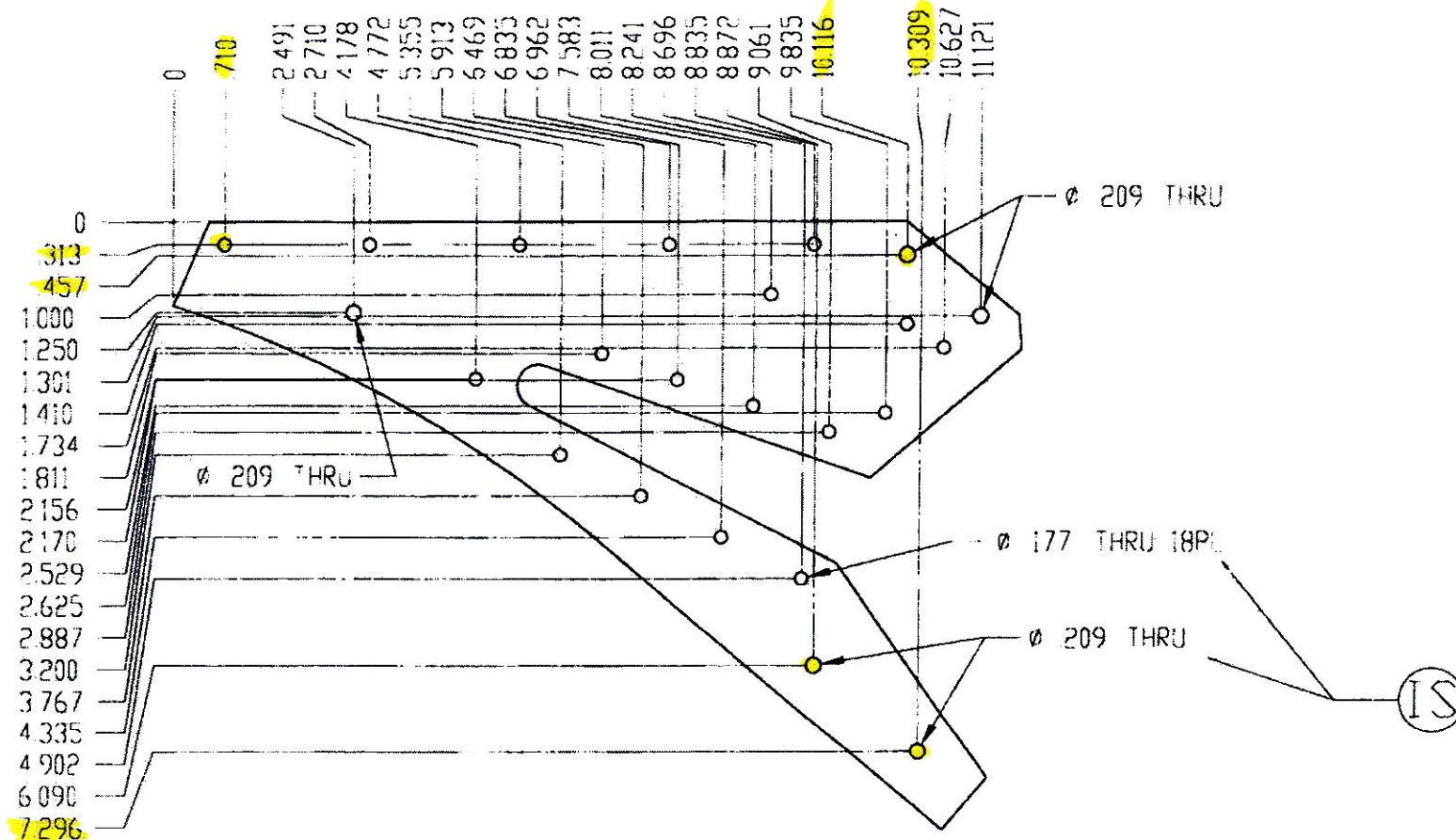
APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02196		SHEET 1 OF 2	
	DWG NO. 646.3300	REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09
	EFFECT ON DWG ☐ INC. ☒ UNINC.			
DWG TITLE: UPPER CUTTER ASSY				
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS				
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE				

SHEET 1, VIEW 646.3301 IS:



14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			.3301		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				☐ MDL ☒ INSTALL INSTRU ☒ ICA ☐ FMS ☒ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR
				DER REVIEW REQUIRED ☐ YES ☒ NO	

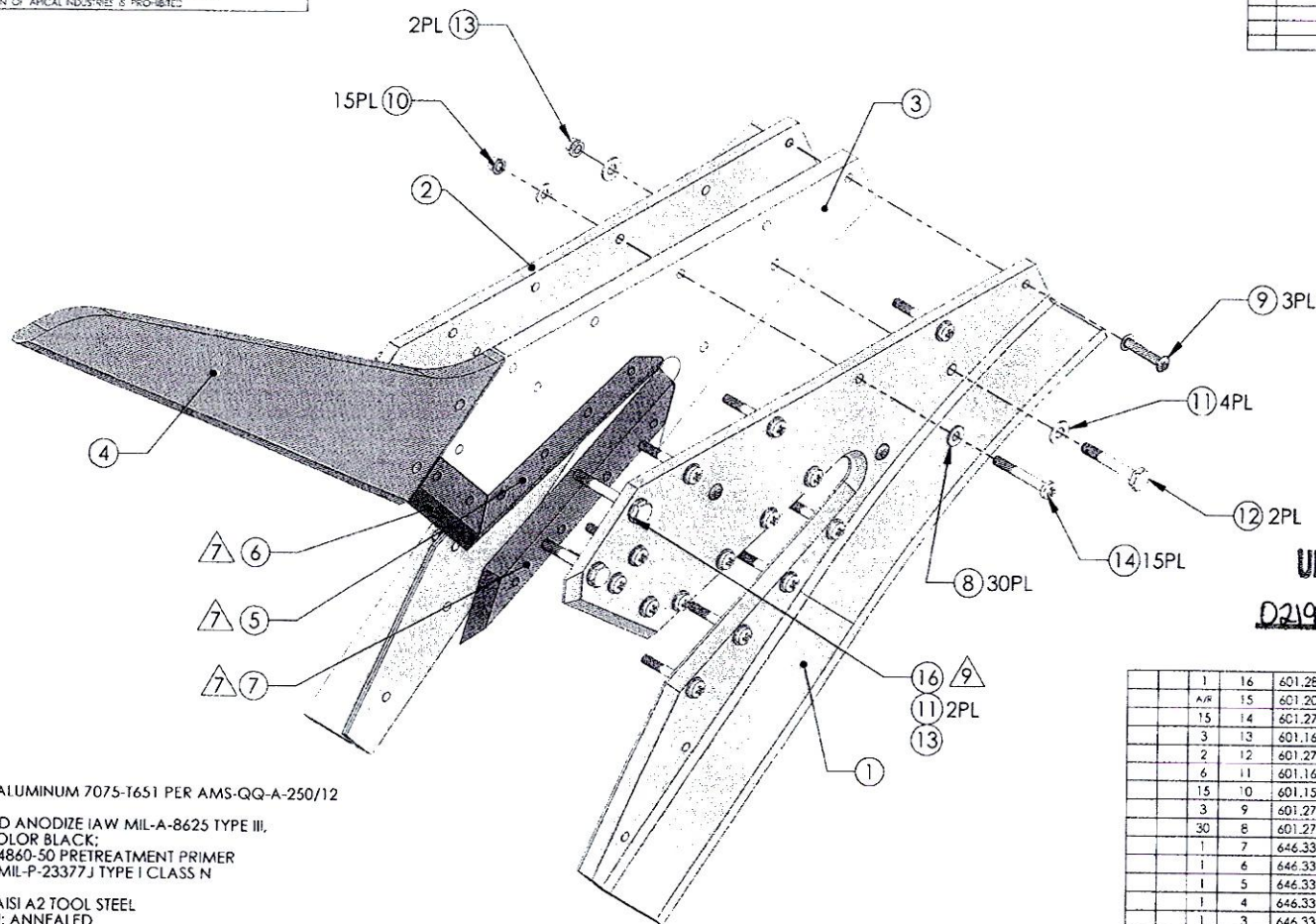
SHEET 3, SECTION VIEW A-A, IS:

SECTION A-A. $\frac{P}{16}$

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION

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REV	DESCRIPTION	DATE	APPROVED



UNINCORPORATED ECN(s)

02196, 03724, 04765

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

646.3301
SHOWN EXPLODED

QTY	1	16	601.2834	BOLT	ANB-144	
	A/R	15	601.2045	RTV, LOCTITE 598		
	15	14	601.2765	SCREW	M321045LS	
	3	13	601.1624	LOCKNUT	M321045LS	
	2	12	601.2763	BOLT	ANB-12A	
	6	11	601.1607	WASHER	M3211490332P	
	15	10	601.1541	LOCKNUT	M32104200E	
	3	9	601.2766	RIVET	M32047040518	
	30	8	601.2764	WASHER	M3211490332P	
	1	7	646.3316	BLADE		
	1	6	646.3315	BLADE		
	1	5	646.3314	BLADE		
	1	4	646.3313	UPPER GUIDE		
	1	3	646.3312	CENTER PLATE		
	1	2	646.3311	RH HALF		
	1	1	646.3310	LH HALF		
			646.3301	UPPER CUTTER ASSY		
QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.	
PARTS LIST						
NEXT ASSY (S)						
646.4000						
ORIGINAL DATE: 08-08-08						
DRAWN BY: S. HUFF						
CHECKED BY: P. BEAVO						
DESIGNED BY: S. HUFF						
CONTRACT NO: 03						
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES						
TOLERANCES ARE:						
2 PLACE DECIMALS ±.01						
3 PLACE DECIMALS ±.005						
ANGLES ±.5°						
SCALE: NONE						
SHEET 1 OF 8						

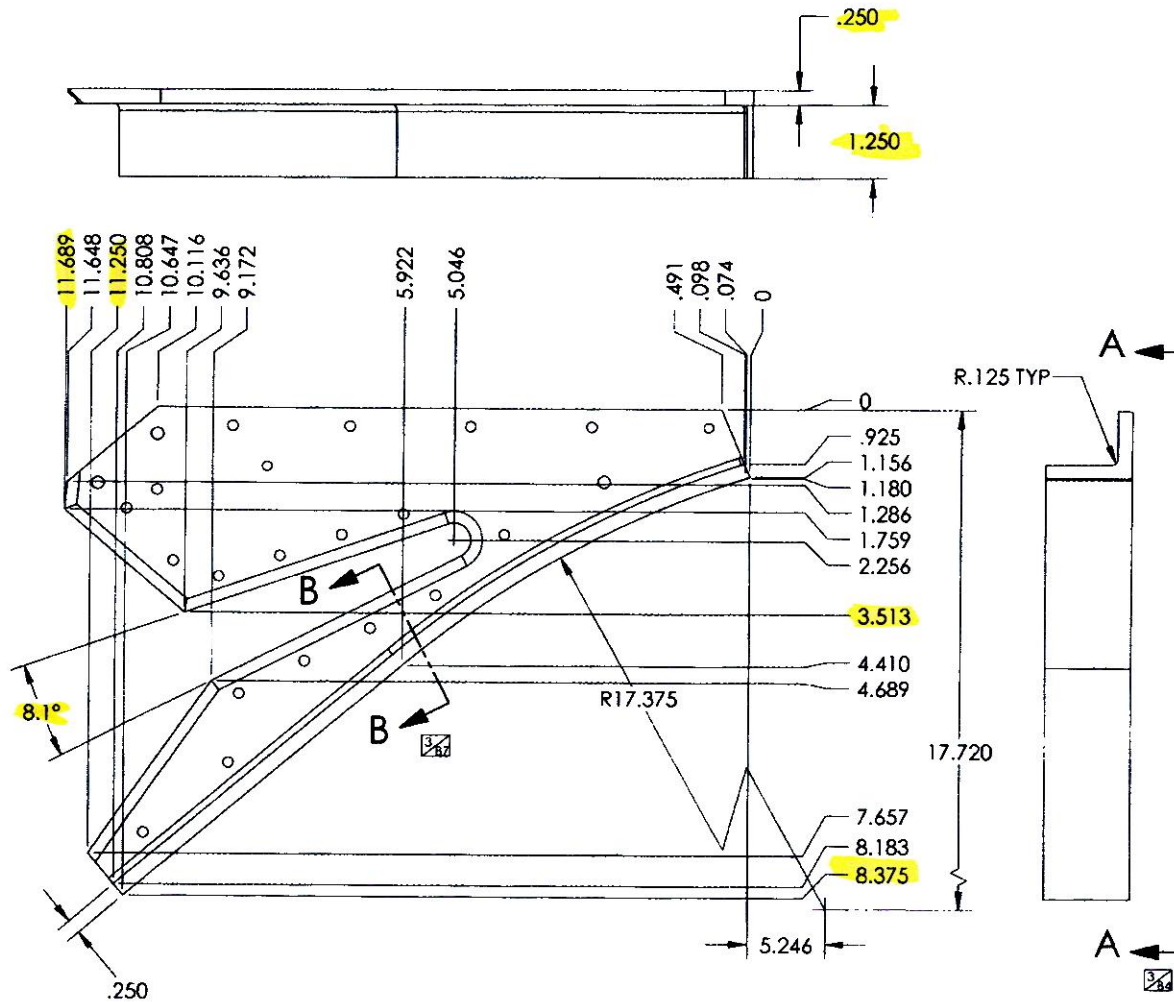
APICAL INDUSTRIES

2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA 92056-3512 (760) 724-5300

UPPER CUTTER ASSY

646.3300

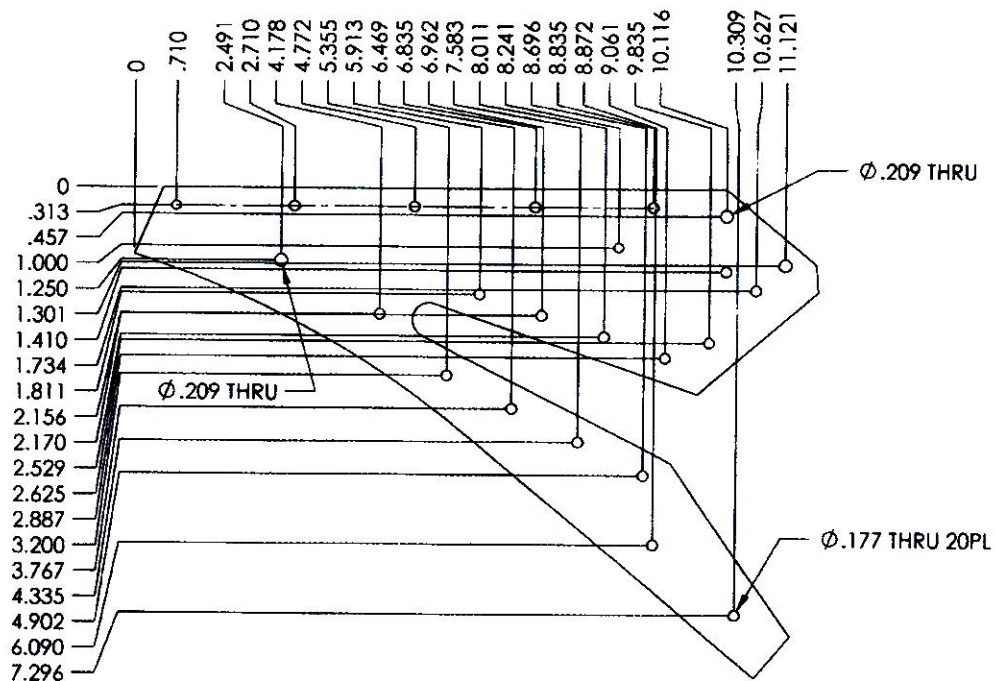
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646.3310 SHOWN
646.3311 OPPOSITE

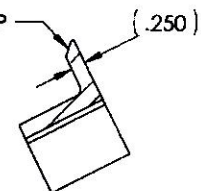
ORIGINAL DATE 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		APICAL INDUSTRIES	
DRAWN BY: J. BRAY CHECKED BY: J. BRAY DATE: 07/04/06		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CONTRACT NO.		UPPER CUTTER ASSY	
PART OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .001 3 PLACE DECIMALS .0005 ANGLES ± .5°		DWG. NO. 646.3300	REV. N/C
SCALE: NONE		SHEET 2 OF 8	

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SECTION A-A $\frac{2}{C}$

.200 X 45.0° TYP

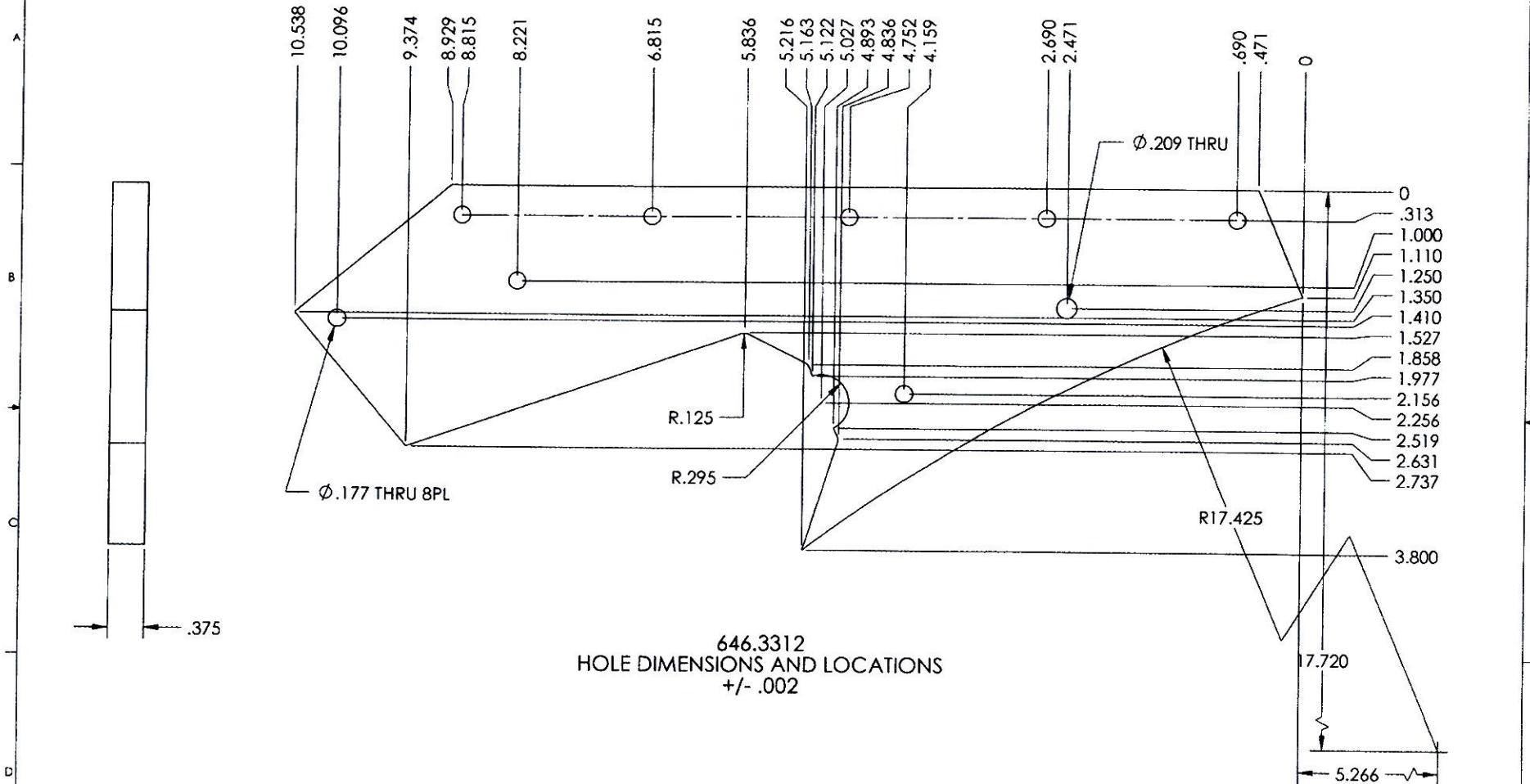


SECTION B-B $\frac{2}{C}$

ORIGINAL DATE 2000-01-11		APICAL INDUSTRIES	
DRAWN BY J. HUNT		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CHECKED BY P. BRAVO		UPPER CUTTER ASSY	
CONTRACT NO.		646.3300	
ALL DIMENSIONS SPECIFIED UNLESS OTHERWISE NOTED TOLERANCES ARE: 2 PLACE DECIMALS .005 3 PLACE DECIMALS .0005 ANGLES $\pm .5^\circ$		DATE CODE B 07/02/06	REV. N/C
		SCALE: NONE	SHEET 3 OF 8

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

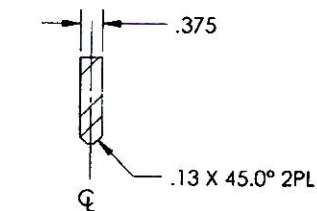
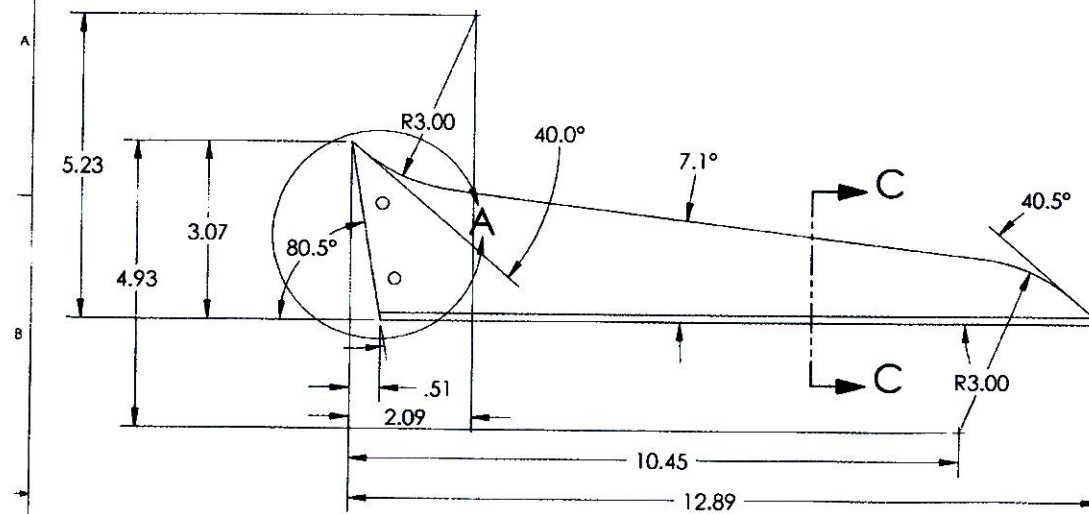


646.3312
HOLE DIMENSIONS AND LOCATIONS
+/- .002

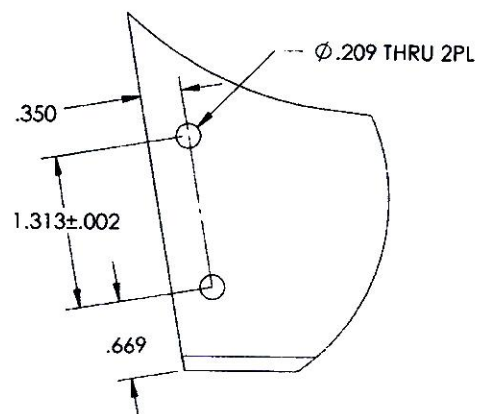
ORIGINAL DATE: 08-24-00 DRAWN BY: J. BRAY CHECKED BY: J. BRAY DRAWING APPROVAL: J. BRAY CONTRACT NO:			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS: ±.01 2 PLACE DECIMALS: ±.005 3 PLACE DECIMALS: ±.001			
APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		UPPER CUTTER ASSY	
REV: B CAGE CODE: 07M26 SCALE: NONE	DWG. NO: 646.3300	REV: N/C	SHEET: 4 OF 8

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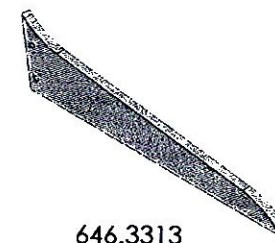
REV	DESCRIPTION	DATE	APPROVED



SECTION C-C



DETAIL A

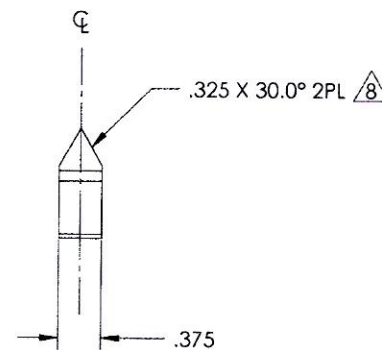
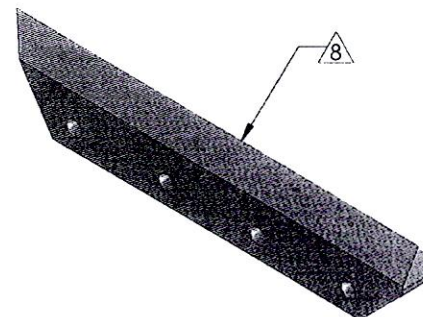
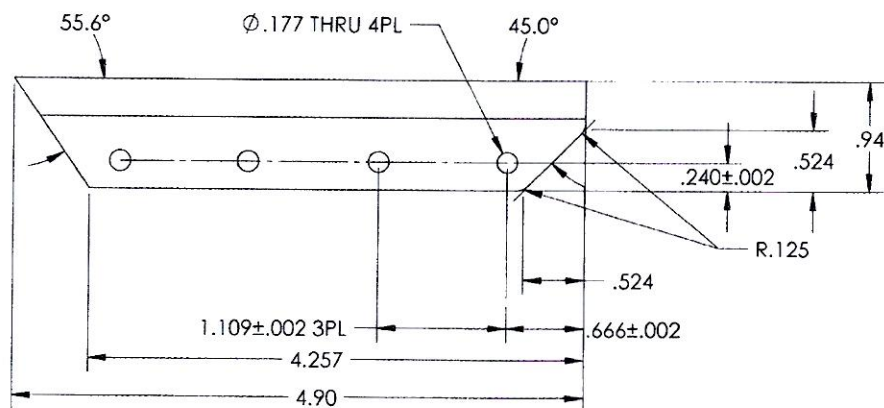


646.3313

ORIGINAL DATE 10/01/98	APICAL INDUSTRIES
DRAWN BY S. HUR	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
CHECKED BY P. HUR	
DRAWING APPROVED BY P. HUR	
DATE 10/01/98	
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 7 PLACE DECIMALS ± .001 1 PLACE DECIMAL ± .005 ANGLE ± .5°	
SHEET B	CAGE CODE 07M26
DWG. NO. 646.3300	REV. N/C
SCALE NONE	SHEET 5 OF 8

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

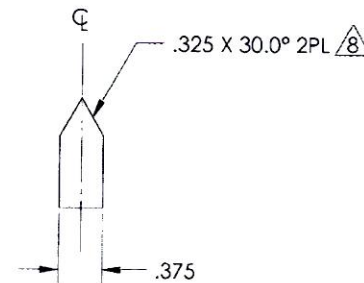
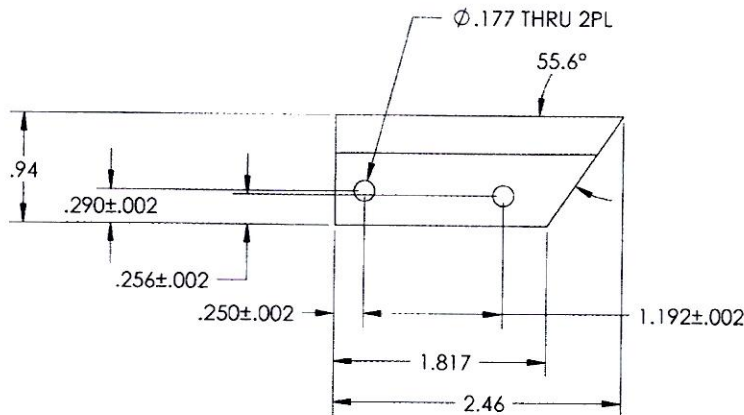
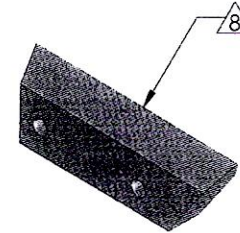


646.3314

ORIGINAL DATE: 08-20-08 DRAWN BY: J. HUNTER S. HUNTER P. HUNTER DRAWING APPROVAL: P. HUNTER CONTRACT NO:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300	
2. ALL DIMENSIONS SPECIFIED UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE / PLACE DECIMALS: 1-1 / PLACE DECIMALS: 1-1 ANGLES: ± .5°		UPPER CUTTER ASSY	
102	CAGE CODE: DWG NO:	646.3300	REV: N/C
8	07/12/08	SCALE: NONE	SHEET: 6 OF 8

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

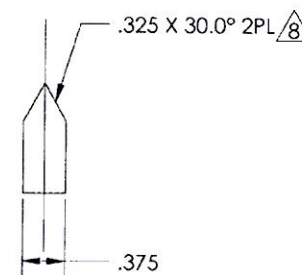
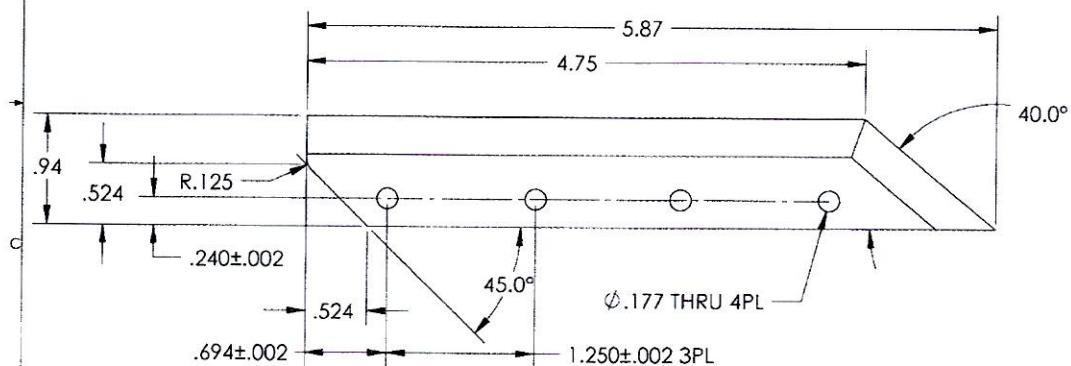
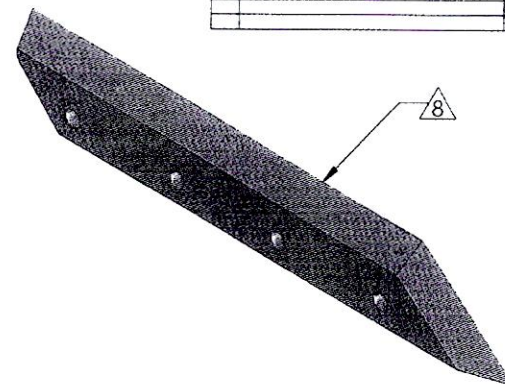


646.3315

ORIGINAL DATE: 08/20/04 MFG DATE: 08/20/04 DRAWN BY: J. NICKER S. HUN DRAWING APPROVAL: P. BRAYO 646.3300 CONTRACT NO:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS E.G. 1.25 ± .01 ANGLES ± .5°		UPPER CUTTER ASSY	
SUF	CAGE CODE	DWG. NO.	REV.
B	07M26	646.3300	N/C
SCALE: NONE		SHEET 7 OF 8	

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REVISION			
REV.	DESCRIPTION	DATE	APPROVED



646.3316

UNFINISH DATE 08-20-08		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY: J. HAY CHECKED BY: J. HAY			
DRAWING APPROVAL: 08-20-08			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS: ±.01 2 PLACE DECIMALS: ±.005 ANGLES: ±.5°		SHEET	REV
		CAGE CODE	NO.
		B	07M76
		SCALE	NONE
		646.3300	N/C
		SHEET	8 OF 8



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO35521**

Purchase Order Date 3/8/2017
PO Print Date 3/10/2017

Page Number 3 of 7

Order From :

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

VC-ATG001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

VENDOR'S TRUCK

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

6	156797	646.3110 CHANNEL REV. N/C	3/27/2017	6.00	\$10.65	\$63.90
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Yes

3/27/2017

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377 TYPE I CLASS N

Line Total: \$63.90

7	155378	646.3210 SUPPORT REV. N/C	3/27/2017	10.00	\$14.35	\$143.50
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Yes

3/27/2017

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377 TYPE I CLASS N

Line Total: \$143.50

8	156787	646.3310 RH HALF REV. N/C	3/27/2017	5.00	\$18.10	\$90.50
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DAS
38
9-89

Yes

3/27/2017

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377 TYPE I CLASS N

Line Total: \$90.50

PO Instructions: PRIMER IS SUPPLIED BY DART

Note:

3/10/2017



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 913083

Date: 24-Mar-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied) Job: 20771 PO: PO35521 Line: 4		
10 ea	Part: 646.3012 Rev: N/C Lower Guide Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied) Job: 20772 PO: PO35521 Line: 5		
6 ea	Part: 646.3110 Rev: N/C Channel Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied) Job: 20773 PO: PO35521 Line: 6		
10 ea	Part: 646.3210 Rev: N/C Support Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied) Job: 20774 PO: PO35521 Line: 7		
5 ea	Part: 646.3310 Rev: N/C RH Half Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied) Job: 20775 PO: PO35521 Line: 8		
10 ea	Part: 646.3312 Rev: N/C Center plate Hard Black Anodize per MIL-A-8625F, Type III, Class 2 Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied) Job: 20776 PO: PO35521 Line: 9		



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 913083

Date: 24-Mar-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms

Ship Via

Quantity

Description

DATE: 24/03/2017

CERTIFIED SIGNATURE: [Signature]

RECEIVER SIGNATURE: [Signature]

Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.

CERTIFICATE OF CONFORMANCE

A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.

MADE IN CANADA.